# Memorandum

**To:** Tony Perez, City of Seattle

**From:** Mike Katz, KFA Services

**Date:** April 7, 2006

**Re:** WaveDivision Holdings

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This is to summarize our observations regarding financial matters in the proposed acquisition of the Seattle cable television assets and operations of Millennium Digital Media Systems, LLC. ("Millennium") by WaveDivision Holdings, LLC ("Wave"[1]). These are based on:

- The FCC Form 394 provided by Millennium and Wave to Seattle,
- Responses by Millennium and Wave to a City request for additional information regarding the acquisition,
- Historical financial and statistical information regarding Millennium's and Wave's operations,
- Financial projections prepared by Wave,
- Discussions with Wave management to clarify the information provided, and
- Industry publications containing national cable television statistics.

Our work was not intended to be an audit or verification of representations made by Millennium or Wave nor have we conducted any market surveys, developed economic forecasts, or prepared any independent financial projections.

**The Transaction**

Wave has agreed to purchase essentially all of the assets of Millennium related to its cable television system in Seattle as part of a larger transaction whereby Wave is acquiring all of Millennium's Washington and Oregon systems. This will be done through creation of a new entity, WaveDivision V, LLC ("WaveV"), which, upon closing of the proposed transaction, will become a 100% owned subsidiary of Wave and will own the current Millennium Washington and Oregon systems. Wave is acquiring the real property, equipment, licenses,

[1] Wave does business under the name Wave Broadband.

franchises, accounting records, and certain contracts, but not certain assets such as rights to use the Millennium name, programming contracts, or insurance contracts which it will provide for separately.

According to the purchase agreement, Wave will also assume Millennium's liabilities and obligations under its franchises, licenses, and contracts, to the extent they are associated with the acquired assets and incurred after the closing of the sale, but essentially no other actual or potential liabilities arising from events prior to the closing of the sale.

Wave will pay approximately $72 million in cash, for operations that it expects will serve about 36,400 subscribers (including about 15,000 in the City of Seattle) upon the closing of the sale. The closing is currently targeted to occur by June 30th, or as late as September 15, 2006 under certain conditions. At about $1,978 per subscriber and about 6 times pro forma[2] operating cash flow for 2006, this is well below the peak prices paid for systems in the 1999 – 2001 period and generally below prices paid for smaller systems, with 10,000 to 50,000 subscribers, recently. However, it is consistent with the need to upgrade many of Millennium's Washington/Oregon systems (see the next paragraph) and, therefore make substantial capital expenditures for those systems over the next couple of years.

In a proposed separate, but concurrent transaction, Wave will also acquire Millennium's Michigan cable television operations via another new entity, Michigan Broadband, LLC, which will also be a subsidiary of Wave. In that transaction, Wave will pay approximately $85 million in cash, for operations that it expects will serve about 32,900 subscribers upon the closing of the sale. Wave will be paying more for the Michigan operations (about $2,584 per subscriber and about 7 times pro forma operating cash flow for 2006), presumably because those systems, on average, are somewhat more modern than the Washington/Oregon systems – with two-way, high-speed Internet access already available to more than 95% of the homes passed by the Michigan systems, versus only about 67% of the homes passed by the Washington/Oregon systems.

**The Buyer**

Wave was formed in November 2002 by Steve Weed, who has lengthy prior experience with cable television systems, initially in marketing and subsequently as general manager and chief operating officer of the Summit systems in the Pacific Northwest, including Summit's City of Seattle system which was acquired by Millennium in 1999 and is now being sold to Wave. In 2003, Wave acquired, and began operating, several groups of cable television systems within the state of Washington, primarily in Kitsap County, Snohomish County, and in areas on the Olympic peninsula. In 2004 and 2005, Wave acquired, and is now operating, additional systems in California, including Ventura, Cerritos, and portions of San Francisco's East Bay area. In short, Wave is a relatively new company with a limited track record of its own.

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[2] Pro forma, in this case, means "as if" Wave had owned and operated the Millennium systems for the entire 2006 calendar year.

Wave is a Limited Liability Company (with insulation of its owners from liability, like a corporation, but eligible for taxation like a partnership, with each owner directly responsible for its share of any profits). Wave has three types of ownership interests; Class A units which have the rights to elect the majority of the management committee of the company, which in turn controls the company, and have certain priority rights with respect of distributions of company profits or cash, and Class B and C units which are intended to provide incentive compensation to executives of Wave over time, similar to grants of stock made to employees in regular corporations. Owners of Class A units have contributed equity cash to Wave, while owners of Class B and C units have not contributed cash. Wave is currently owned by:

- WaveDivision Capital, LLC (10% of the Class A units): owned by Steve Weed and several other individuals, primarily relatives, expressly formed to invest in Wave.

- Sandler Capital Partners V, LP; SCP V FTE WaveDivision Holdings, LP; and SCP V Germany WaveDivision Holdings, LP (90% of the Class A units on a combined basis): all are private limited partnership equity funds, whose ultimate general partner is Sandler Capital Management, a private equity investment firm based in New York City. Since 1989, Sandler has established five primary equity funds with capital commitments from investors of about $1.6 billion. As of March 2006, the Sandler Capital Partners V entities involved with Wave have invested approximately $584 million in a number of businesses, and have approximately $80 million remaining which could be invested in existing or new businesses. Overall, Sandler Capital has invested in approximately 100 private businesses, in media, telecommunications, including cable television systems, and related technology companies.

- WaveDivision Networks, LLC (85% of the current Class B and C units): a personal holding company owned solely by Steve Weed, the Chief Executive Officer of Wave.

- Steve Friedman (15% of the current Class B and C units): the Chief Operating Officer of Wave.

**Wave's Financing**

To-date, Wave has received equity capital totaling about $69 million from its Class A unit investors. The entire amount was actually contributed to Wave in 2003 and used to acquire Wave's current Washington state operations. Sandler has also indicated that it would be willing to contribute up to an additional $50 million in equity funds, should it be needed to fund the acquisitions of the Millennium Michigan and Washington/Oregon systems. However, such an additional contribution is not currently expected since Wave anticipates borrowing the $157 million combined purchase price through a new, expanded credit facility.

Wave has previously established a senior secured credit facility with Wells Fargo Bank as the primary loan administrator, and a group of other large institutions, including CIT Lending Services, Bank of America, and General Electric Capital Corporation, as participating lenders. As of December 31, 2005, Wave had borrowed $140 million (out of $165 million available) under the term loan provisions of the facility to fund its prior cable system acquisitions. In addition, Wave had borrowed $4 million under a revolving line of credit that is also available under the facility.

Wells Fargo has now indicated that, under certain conditions, it is willing to create a new credit facility, with a new consortium of lenders, to provide up to $300 million in term loans – to retire the prior acquisition debt and fund the acquisition of the Millennium systems – and up to $50 million in a revolving credit facility for general working capital purposes. Wave has indicated that it is proceeding with the establishment of this new credit facility, in order to have it formally in place at the closing of the Millennium acquisition.

**Wave's Future Expectations**

The financial projections provided by Wave, covering the years 2006 through 2014, reflect Wave's expectations for acquiring and operating the current Millennium Washington and Oregon systems (referred to as "WaveV" below, the entity proposed to be the franchisee in Seattle) as well as Wave's expectations for its overall operations (referred to as "WaveCombined" below), including Millennium's Washington, Oregon, and Michigan systems and Wave's current Washington and California operations. The projections are based on numerous assumptions, including those discussed below:

> **System and subscriber growth**: Wave expects that the number of homes passed by its WaveV cable systems, as well as by WaveCombined overall, will grow slightly at an annual rate of about .6%. The projections assume that the number of miles of cable distribution plant will increase commensurately, with densities (homes per mile) staying essentially unchanged.
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> The number of basic subscribers for WaveV is expected to grow slightly, from about 36,200 currently to about 37,700 by the end of 2014. This is approximately the same growth rate as that of homes passed, i.e., basic penetration[3] for WaveV is expected to remain essentially unchanged from current levels, at about 32%, over the projection period. Millennium has actually lost subscribers over the last couple of years – the projections for WaveV for 2014 assume subscribership will return to roughly the number that Millennium had two years ago. By upgrading many of the Washington and Oregon systems that currently have limited capabilities, Wave may be able to attract new subscribers and/or stabilize its current subscribership.

[3] Basic subscribers as a percentage of homes passed.

Similarly, the number of basic subscribers for WaveCombined is expected to grow at about the same rate as its homes passed, to about 163,100 by the end of 2014. Basic penetration is projected at about 40.5% throughout the period.

These penetrations are lower than national averages (currently about 53% overall, but expected to decline nationally to about 51% over the projection period).

Wave expects to increase sales of digital tier services at a very moderate pace. WaveV's digital subscriber penetration[4] is projected to grow from about 27% currently to about 32% at the end of 2014. WaveCombined's digital subscriber penetration is projected to grow from about 34% to about 40% over the same period. These expectations are more conservative than national average projections for the cable industry which indicate current digital penetrations of about 45% growing to about 68% in 2014.

Wave expects its sales of premium pay services to decline slightly in the near term and then rebound slightly, later in the projection period. Pay-to-basic penetration[5] at WaveV is projected to go from about 47% to about 45% by the end of the projection period, and to stay at about 47% - 48% for WaveCombined throughout the period. Wave would remain below national averages, which are currently about 79% and projected to grow very slightly to about 80% pay-to-basic penetration by 2014.

In contrast to its "steady-state" video services projections, Wave expects to achieve very substantial growth from high-speed Internet access services (high speed data services or HSD), with subscribership growing at a compound annual rate of about 11% over the projection period. For WaveV, HSD subscriber penetration[6] is projected to grow from about 42% at year-end 2005 to about 79% by the end of 2008, and then to 102% by 2014, presumably due to a significant number of customers who would subscribe to HSD services without taking video services. For example, someone may prefer satellite service for television viewing, but still want high speed Internet access through Wave.

Note that, if penetration is simply viewed in terms of homes passed, i.e., HSD subscribers as a percentage of total homes passed – consistent with a point of view that HSD subscribers are, over time, becoming less likely to also be video subscribers – are about 14% in 2005, growing to about 33% in 2014.

For WaveCombined, HSD subscribership is projected to grow at a compound annual rate of about 8%, with penetration growing from about 49% at year-end 2005 to about 89% by the end of 2014 (from 20% to about 36%, respectively, if viewed as penetration of total homes passed).

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[4] Digital subscribers as a percentage of basic subscribers.
[5] Pay units as a percentage of basic subscribers; a subscriber to HBO, Cinemax, and Encore would count as three pay units.
[6] HSD subscribers as a percentage of basic subscribers.

These expectations for WaveV and WaveCombined are more optimistic than national average projections, which anticipate growth of cable operator HSD penetration from about 40% - 45% currently to about 63% in 2014 (22% - 25% currently to about 31% in 2014 if viewed as penetration of total homes passed). Note, however, that 1) there are generally wide variations from system to system, and 2) these are relatively new services, now facing competition in many locations from non-cable telecommunications companies, so that there is substantial uncertainty as to what "mature" penetrations will prove to be.

Finally, Wave also expects to achieve very substantial growth in telephony (VoIP) services. WaveV is projected to go from a few hundred telephony subscribers currently to about 28,600 telephony subscribers by the end of 2014, a penetration[7] of about 76% (24% if viewed as a percentage of homes passed). Telephony penetration for WaveCombined is projected to grow from about 10% at the end of 2005 to about 67% by the end of 2014 (4% to 27%, respectively, if viewed as a percentage of homes passed). Again, these expectations are more optimistic than national average projections, which anticipate growth of VoIP penetration from about 5% - 10% currently to about 36% by the end of 2014 (about 3% - 7% to about 20%, respectively, if viewed as a percentage of homes passed). Of course, there is a very high degree of uncertainty as to how the market for this very new service, with even more alternative forms of competition, will develop over time.

**Revenue**: Total annual revenue for WaveV, including both subscriber revenue and other revenue such as advertising, is expected to grow from about $32 million currently to about $68 million in 2014. Total revenue per average subscriber per month, about $71 in 2005, is expected to grow to about $151 in 2014, about 8.7% average growth per year. Similarly, WaveCombined's annual revenue is projected to grow from about $141 million in 2005 to about $287 million in 2014, and total revenue per average subscriber per month is projected to grow from about $74 in 2005 to about $147 in 2014, about 7.9% per year. Wave's current average revenues per subscriber appear to be below national averages, currently estimated at about $80 - $85 per month, but are projected to grow faster over the projection period ending above a projected national average of about $138 per month in 2014.

The revenue growth primarily reflects Wave's expectation of very substantial expansion of subscribers to Internet access services and telephony services. Wave's projections also anticipate rate increases averaging 5% per year for basic services in most of its systems and most years, with annual rate increases for other services, including telephony services, averaging 3% or 4% in most of its systems and most years. The exception is high-speed Internet service, which Wave projects to decline in price (average revenue per subscriber per month) at about 1% per year over the projection period.

[7] Telephony subscribers as a percentage of basic subscribers.

**Operating expenses and margin**: Total operating expenses are anticipated to grow at an overall rate of about 8.6% per year for WaveV and about 7.6% per year for WaveCombined, both less than the respective revenue growth rates. In general, overall programming/direct service costs, as a percentage of total revenue, are expected to grow from about 30% - 31% currently to about 35% in 2014, for both WaveV and WaveCombined. Other costs are expected to grow at approximately inflationary levels of 3% - 4% on a per unit basis (per subscriber or per plant mile).

The effect of these assumptions is projected growth in net operating cash flow[8] from about $12 million in 2005 to about $28 million for WaveV in 2014, about 40.5% of total revenue, and from about $53 million in 2005 to about $116 million for WaveCombined in 2014, also about 40.5% of total revenue.

Wave's current and projected operating margins[9] are generally consistent with typical cable operator margins of 35% - 45%.

**Capital expenditures**: Wave's projections assume that substantial system rebuilding and upgrading will immediately be required and carried out in many of Millennium's Washington and Oregon systems (other than Seattle, which was already upgraded several years ago), as well as in some of Millennium's Michigan system. In addition, some new distribution plant construction is expected throughout Wave's systems and substantial capital expenditures will be required to maintain/replace system plant and equipment, and provide for installations and customer equipment associated with video, HSD, and telephony services.

Wave anticipates capital spending of about $40 million in the 2006 -2008 period for WaveV, with subsequent annual capital expenditures of about $6 - $8 million throughout the projection period. Annual capital expenditures range from a high of about $532 per subscriber to a low of about $181 per subscriber during the projection period. These amounts are within normal industry ranges, although such amounts vary widely among systems and operators, depending upon the extent of rebuilding or new construction occurring.

Wave anticipates capital expenditures of approximately $130 million in the 2006 - 2008 period for WaveCombined, with subsequent annual capital expenditures of about $30 - $36 million throughout the projection period. Overall annual capital expenditures range from a high of about $365 per subscriber to a low of about $181 per subscriber during the projection period.

**Financing and debt service**: As indicated earlier, Wave expects to use about $157 million in additional borrowing from a new credit facility to acquire the Millennium

[8] Total revenue less "cash" operating expenses, i.e., before consideration of capital or financing costs.
[9] Operating cash flow as a percentage of revenue.

cable operations. This is projected to bring total debt outstanding for WaveCombined[10] to about $310 million at the end of 2006, or about $2,000 per subscriber. In comparison, the cable debt per subscriber for seven of the largest publicly owned cable operators ranged from about $780 to about $3,250 per subscriber as of the end of 2004, with the median around $2,070.

Repayment of the term loan debt principal is assumed to begin in 2007, with the full term loan debt principal repaid by the end of 2014, consistent with the proposed new credit facility agreement. However, for the first couple of years, Wave's projections indicate a need to borrow additional cash through the revolving loan portion of the credit facility in order to meet its overall obligations, including the term loan principal payments. Thus, it anticipates peak debt to occur in 2007 with approximately $329 million debt outstanding at the end of the year.

As is typical, required principal payments are relatively low in the early years and higher in later years, with, in this case, more than 60% of the term loans coming due in the last year of the projection period.

Wave assumes it will pay interest on its debt, at interest rates averaging around 7% per year, i.e., $21 million to $22 million per year initially, declining in later years as the debt principal is repaid. These rates appear to be generally consistent with recent levels of the floating[11] rates provided for in the credit facility. However, should market interest rates rise, as they have been doing recently and may continue to do after the low interest rates of the last couple of years, Wave may need to use greater amounts of its cash flow to make its interest payments. To reduce its risk and exposure to potentially increasing interest rates, Wave expects to enter into various hedging agreements intended to convert portions of its debt to fixed rate debt, or to limit increases in its interest rates, for various periods of time going forward.

More importantly, the ratio of debt to operating cash flow for WaveCombined, sometimes referred to as a leverage ratio and which is a measure of the company's ability to service its debt (make interest and principal payments), is projected to be about 5.7 at the end of 2006, less than its year-end 2005 debt to cash flow ratio for its current Washington and California systems. This ratio is within the typical range of 3 – 7 for large, financially strong cable TV operators in recent years. Note that a lower ratio is financially stronger, since it implies greater adequacy of the cash flow to service the debt. Wave projects that the ratio will decline over the projection period as cash flows increase and debt is reduced.

[10] Note that Wave's financing is all done on a consolidated basis – the debt and associated interest and principal payments are not associated with any individual system.

[11] Wave's interest rates in any given period will depend upon the level of a standard "benchmark" rate, either the prime rate or a "Eurodollar" interest rate, as well as upon Wave's actual performance in maintaining or reducing its leverage over time.

**Summary**

In essence, Wave's projections indicate sufficient cash from its debt funding to acquire the Millennium systems and then sufficient operating revenues to meet its anticipated operating and capital expenditure needs, excluding financing obligations (interest and principal payments). However, in 2006 and 2007, net available cash flow from WaveCombined, reflecting monies left over after subtracting all operating and capital expenditures from revenues, as well as interest payments to the banks, is expected to be negative, i.e., as discussed earlier, Wave will have to borrow more money – using its revolving credit facility – to fully meet all of its financial obligations.

Beginning in 2008, Wave's assumptions imply positive net available cash flow, growing from about $17.4 million in 2008 to about $66.9 million in 2014. These monies allow for required or discretionary principal repayments to the banks and, in part, could be available to distribute back to owners as a return of and on the initial equity contributions or, alternatively, they could be used to make additional acquisitions and enlarge Wave's overall business.

Wave should be able to obtain the financing necessary to complete the acquisition of Millennium's cable operations; while final agreements and documentation are not yet in place, preliminary commitments and approvals have been obtained.

Debt funding beyond what was required for Wave's prior acquisitions and the current Millennium transactions is reflected in its proposed new credit facility, and, indeed, Wave's projections do not assume use of its entire credit facility, leaving some room for additional borrowing should it become necessary.

Wave's projections may be optimistic in at least two areas:

- Subscribership and revenues: Wave may not be able to maintain video subscribership in both the Millennium systems and Wave's current systems in the face of actual and potential new competition, while continuing to raise prices, and Wave may not be able to increase subscribership to HSD and telephony services throughout its service areas as rapidly as it anticipates, and

- Interest expenses: To the extent Wave is unable to achieve the very rapid growth in HSD and telephony services/revenue it anticipates, its operating cash flows will be lower than expected which, in turn, will reduce Wave's ability to repay debt principal as rapidly as is assumed in the projections; then, in turn, higher outstanding debt levels would require higher interest payments, further reducing Wave's ability to repay debt principal.

The primary financial risk is that of meeting debt service obligations. Even with more conservative assumptions, i.e., lower revenue and higher operating expense and capital expenditure assumptions, available operating revenues should be adequate to meet such operating and capital expenditure needs – once the initial system rebuilds and upgrades are complete – but then may not allow for interest and principal payments as contemplated by the projections.

This could lead to attempts to reduce customer service levels or system maintenance or retreat from franchise obligations in order to make more funds available. However, alternatively, Wave may also be able to manage the debt service differently than assumed in the projections, i.e., it may be possible to repay debt principal more slowly or in larger amounts at later points in time, when operating cash flow is higher.

Further equity cash infusions from Sandler or others, or a complete refinancing of the debt may also be possible at some point. Ultimately, if the debt cannot be managed successfully, the most likely outcome would be a sale of some or all of Wave's systems to someone willing to provide a new capital structure, with fresh equity and debt.

Because of the uncertainties associated with the financial projections and with Wave – a relatively new company with no "deep pocket" parent corporation to provide external financial support or to further guarantee franchise performance[12] – the City may wish to consider requiring that a more substantial security fund/letter of credit[13] or performance bond be put in place as a condition of approving the transfer of the franchise to Wave, in order to better secure performance of franchise obligations.

While such a letter of credit or bond cannot prevent future problems from arising, it may help protect the City and its franchise area subscribers should Wave be unable to meet its financial expectations and become unable or unwilling to meet its franchise obligations.

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[12] Wave has indicated that it will agree to guarantee the performance of WaveV, the new subsidiary which it proposes as the franchisee for the current Millennium operations in Seattle.

[13] The current franchise agreements (see Section 12.4 in each of the two Summit/Millennium franchise agreements) provides for only a $20,000 security fund/ letter of credit for each franchise, i.e., $40,000 in total. With monthly franchise fees of approximately $30,000 - $35,000 currently, and projected to grow under Wave's management, the current security funds seem somewhat small. To provide a bigger cushion and more time to react in case Wave runs into financial difficulties, three months worth of franchise fees would imply security funds/letters of credit totaling about $100,000